

Patent claims

1. A prosthetic knee joint, with an upper part (10)
5 which has a fastening device (11) for a receptacle
(100) for a leg stump, and with a lower part (20)
which is pivotably connected to the upper part
(10) via an articulation device, characterized in
that the prosthetic knee joint has a resistance
10 device (30) which acts as a lock and which blocks
a flexion of the articulation device within a
definable angle range, the lower part (20) being
freely pivotable in the flexion direction outside
the definable angle range.
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2. A prosthetic knee joint, with an upper part (10)
which has a fastening device (11) for a receptacle
(100) for a leg stump, and with a lower part (20)
20 which is pivotably connected to the upper part
(10) via an articulation device, and with a catch
device (51, 52, 53, 76, 62) for arresting the
prosthetic knee joint in the extended position,
the catch device (51, 52, 53, 76, 62) being able
to be locked and unlocked by an operating device
25 (50), characterized in that the prosthetic knee
joint has a resistance device (30) which offers
resistance to the flexion of the articulation
device within a definable angle range, the lower
part (20) being freely pivotable in the flexion
30 direction outside the definable angle range.
3. The prosthetic knee joint as claimed in claim 1 or
2, characterized in that the lower part (20) can
at all times be freely extended.
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4. The prosthetic knee joint as claimed in one of the
preceding claims, characterized in that the
resistance to flexion can be increased to a

locking action, and the resistance device (30) is designed such that it can be switched.

- 5 5. The prosthetic knee joint as claimed in one of the preceding claims, characterized in that the resistance device (30) and/or a catch device is coupled to an operating device (50) via which the resistance is increased or decreased or the locking is released or arrested.
- 10 6. The prosthetic knee joint as claimed in claim 5, characterized in that the operating device (50) is driven by hand or by motor.
- 15 7. The prosthetic knee joint as claimed in claim 5 or 6, characterized in that the operating device (50) is designed as a remote control device.
- 20 8. The prosthetic knee joint as claimed in one of the preceding claims, characterized in that the resistance device (30) is connected to a mechanical control device (70) which has at least one cam disk (71) and switches the resistance device (30) as a function of the angle of flexion of the upper part (10) relative to the lower part (20).
- 25 9. The prosthetic knee joint as claimed in one of the preceding claims, characterized in that the resistance device (30) is designed as a hydraulic or pneumatic unit, a friction coupling or an electromagnetic coupling or a device based on magnetorheological or piezoelectric principles.
- 30 10. The prosthetic knee joint as claimed in claim 9, characterized in that the hydraulic or pneumatic unit has a controllable valve system (60) which is arranged inside a piston (30') guided in a cylinder (26).

11. A prosthetic knee joint, with an upper part (10)
which has a fastening device (11) for a receptacle
(100) for a leg stump, and with a lower part (20)
5 which is pivotably connected to the upper part
(10) via an articulation device, and with a catch
device (51, 52, 53, 76, 62) for arresting the
prosthetic knee joint in the extended position,
the catch device (51, 52, 53, 76, 62) being able
10 to be locked and unlocked by an operating device
(50), characterized in that the operating device
(50) is operated by remote control.
12. A prosthetic knee joint, with an upper part (10)
15 which has a fastening device (11) for a receptacle
(100) for a leg stump, and with a lower part (20)
which is pivotably connected to the upper part
(10) via an articulation device, and with a catch
device (51, 52, 53, 76, 62) for arresting the
20 prosthetic knee joint in the extended position,
the catch device (51, 52, 53, 76, 62) being able
to be locked and unlocked by an operating device
(50), characterized in that a delay element (384,
385, 386) is assigned to the catch device (51, 52,
25 53, 76, 62) and unlocks or re-locks the catch
device (51, 52, 53, 76, 62) after a time delay
after activation of the unlocking.
13. The prosthetic knee joint as claimed in claim 11,
30 characterized in that the delay element (38) is
designed as a relay, as an elastic (386) and/or
rheological element (385) or as an electronic
circuit with actuator.